APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/733,808	12/08/2000	Danny Chin	DIVA/241	3084

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EXAMINER
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ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 03/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *12/22/2004*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
  closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-19* is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-19* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on *12/08/2000* is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a) ☐ All   b) ☐ Some *   c) ☐ None of:

  1. ☐ Certified copies of the priority documents have been received.

  2. ☐ Certified copies of the priority documents have been received in Application No. _____.

  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
    application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
  Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
  Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

Detailed Action

1.   This Office Action is in response to the Amendment filed on 12/22/2004. Claims

4-5 and 9 have been amended. Claims 1-19 remain for examination.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3.   **Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by**

Lumelsky et al. (US 6,377,996), herein after referred as Lumelsky.

4.   As to claim 1, Lumelsky teaches a method for migrating a user from a source

server module *(primary server)* providing a content stream to said user to a destination

server module *(auxiliary server),* comprising:

determining, for said content stream being provided to said user, a transitional

extent defining an appropriate first extent to be provided to said user via a destination

server module *(i.e., determining parameters such as the Last Segmentation Marker, the*

Target Segmentation Marker, etc., with the number of bytes between markers is L, i.e.,

defining an appropriate first extent to be provided to said user) (Figs. 7 and 13, C3:L66 -

C4:L3, C7: L44-52 and C10: L33-48);

determining if said destination server module is capable of providing said

transitional extent to said user within a first time period *(based on the Target*

Segmentation Marker associated with the request, the target server may estimate

whether given the current network conditions and resources, a streaming connection

would be available with a safe margin of error, i.e., within a time out period, for

performing a seamless switch at the desired Target Segmentation Marker) (C10: L48-54

and C11: L53-59); and

causing said destination server module to provide said transitional extent and

subsequent extents associated with said content stream to said user (C10:L64 - C11:

L29).

5.   As to claim 2, Lumelsky teaches the method of claim 1, wherein said first time

period comprises a transitional extent deadline determining the time at which said

transitional extent must be retrieved from a storage device *(i.e., a transitional time out based on or defined by a Deadline Segmentation Marker)* (Fig. 13 and C10: L55-63).

6.   As to claim 3, Lumelsky teaches the method of claim 1, wherein said second step of determining comprises the steps of:

communicating at least said transitional extent including a transitional extent deadline to said destination server module *(to migrate a client and its streaming session, AS1 710 signals the selected target server PS2 700 with the hand-off request message 740 including a Deadline Segmentation Marker as in Fig. 13)* (C10: L33-48); and evaluating a message received from said destination server module, said message comprising óne of a rejection, an acceptance and a modified acceptance of a migration of said user to said destination server module (C10: L55-63).

7.   As to claim 4, Lumelsky teaches the method of claim 3, wherein in the case of a rejection of the migration of said user to said destination server module, an alternate destination server module is selected (C11: L60-67).

8.   As to claim 5, Lumelsky teaches the method of claim 3, wherein in the case of an acceptance message, said method further comprises the steps of determining in the event of said transition extent deadline has passed; determining the next transitional extent for said content stream being provided to the user *(i.e., if the hand-off proceed*

message was not received and a time out was taken, the processing returns to step 1000 to receive more signals) (Fig. 11 and C12: L42-45).

9.   As to claim 6, Lumelsky teaches the method of claim 5, wherein in response to said transitional extent deadline not having passed, stopping output and sending a trigger message to said destination server module (C11: L17-29).

10.   As to claim 7, Lumelsky teaches the method of claim 6, further comprising the step of waiting for a response message from said destination server module *(i.e., the main/primary server waiting for an acceptance or denial of service for the hand-off request from the target server);* and in response to an error indicative response message, selecting an alternative destination server module *(i.e., in case of a denial of service for the hand-off request from the target server, the process returns to step 990 to select an alternative server)* (Fig. 10, C10: L55-63 and C11: L60-67).

11.   As to claim 8, Lumelsky teaches the method of claim 3, wherein in response to a modified acceptance message, said method performs the steps of:

        selecting a new transition extent in the case of said modified acceptance being appropriate *(i.e., facilitating the negotiation of a common start point);* and selecting an alternative destination server module if said modified acceptance is inappropriate *(the migration may be repeated until a server satisfying a constraint is found)* (C14: L17-49).

12.   As to claim 9, Lumelsky teaches the method of claim 4, wherein an alternate

extent is selected to cause a repetition in content preparation *(i.e., inherently, facilitating*

the negotiation of a common start point could cause a repetition in content preparation).

13.   As to claims 10-11, Lumelsky teaches the method of claim 1, wherein said

transitional extent is entered at an extent boundary *(i.e., the market insertion unit 406*

prepares and formats the segmentation markers 408, 410, 494 and inserts them among

the frames 418 of the original stream 416) and including an asserted discontinuity flag

(i.e., including an End Marker Flag) (Figs. 6-7 and C8: L29-59).

14.   As to claims 12-14, Lumelsky teaches the method of claim 1, wherein said

transitional extent is determined with respect to a packet offset parameter comprising an

asserted discontinuity flag *(i.e., comprising an End Marker Flag)* in a header portion of

said transitional offset packet (Fig. 7 and C8: L60-64).

15.   Claims 15-16 are corresponding receiving method claims of method claims 1-8;

therefore, they are rejected under the same rationale.

16.   Claims 17-19 are corresponding apparatus claims of method claims 1-8;

therefore, they are rejected under the same rationale.

Response to Arguments

17.   In the remarks, Applicant argued in substance that

(A)   Prior Art does not teach or suggest "a transitional extent defining an appropriate first extent to be provided to said user via a destination server module".

As to point (A), **Lumelsky** teaches a method for providing parameters on location, time and manner *(where, when, and how)* to migrate a client across primary servers and/or auxiliary servers, wherein the primary server *(AS1 710)* signals the selected target server *(PS2 700)* with a hand-off request message includes the parameters such as the Primary Server unique ID, the Target Server unique ID, the Client unique ID, the Hand-off unique ID, the Content/Stream unique ID, the Deadline Segmentation Marker, the Last Segmentation Marker, the Target Segmentation Marker, etc., *(i.e., the Last Segmentation Marker, the Target Segmentation Marker with the number of bytes L between markers to define an appropriate first extent as a transitional extent to be provided to said user)* **(Figs. 7 and 13, C3:L66 - C4:L3, C7: L44-52 and C10: L33-48)**; and once upon a stream connection is then scheduled at step 1040, and setup is performed at step 1040 and the streaming is initiated at step 990 *(once its switching unit determines that it is safe to switch from the primary server AS1 710 to the selected target server PS2 700, i.e., before the Deadline Segmentation Marker expires)*, the target server becomes a main server **(Fig. 10, C11: L8-29 and C12: L42- 53)**.

18.   Applicant's arguments as well as request for reconsideration filed on 12/22/2004

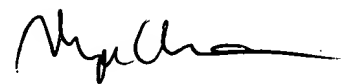have been fully considered but they are not deemed to be persuasive.

19.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

20.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quang N. Nguyen whose telephone number is (571) 272-3886.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's SPE, Rupal Dharia, can be reached at (571) 272-3880. The fax phone number for the organization is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RUPAL DHARIA
SUPERVISORY PATENT EXAMINER